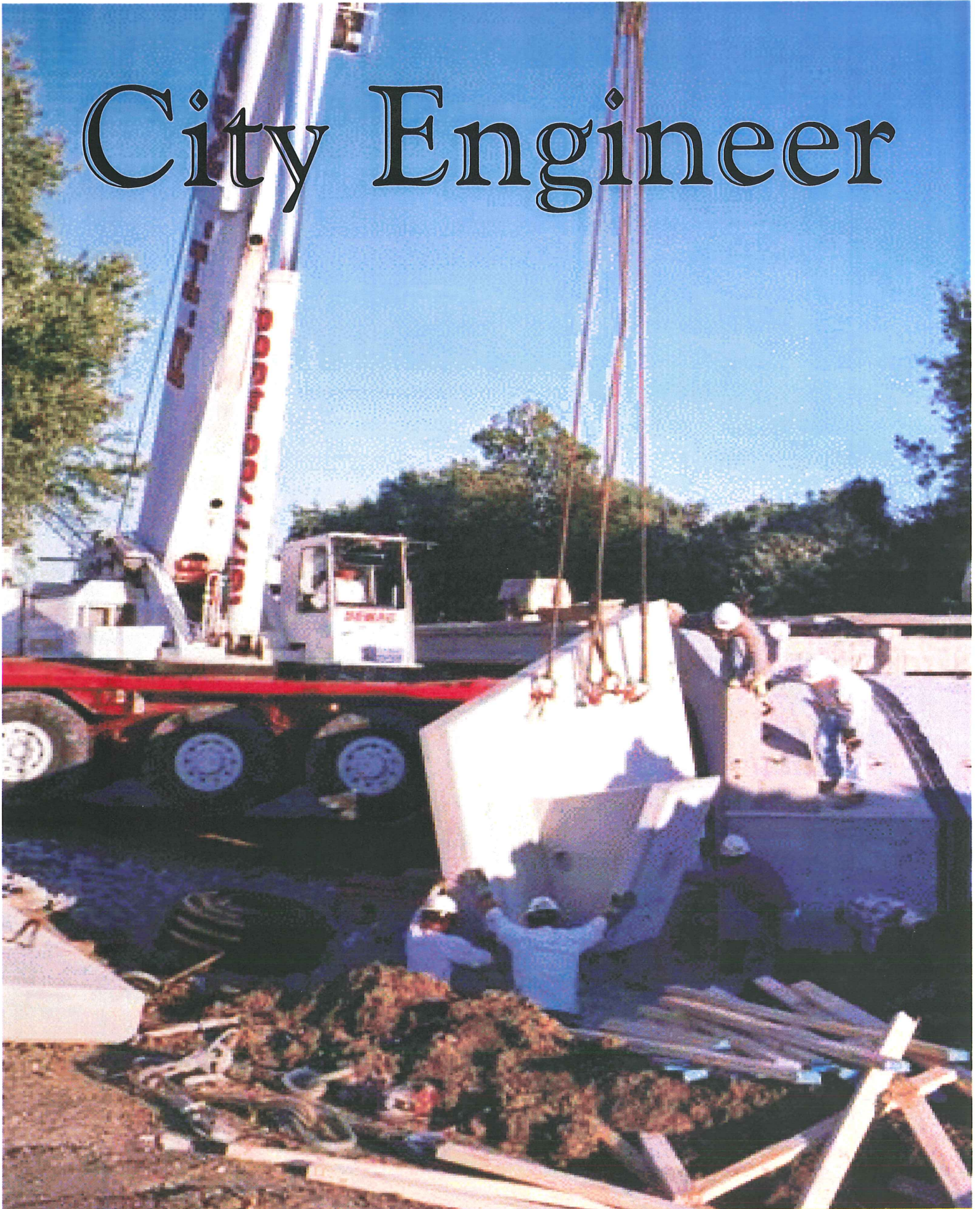


City Engineer



2000 Annual Report of the City Engineer

ROCKY FORD ROAD CONSTRUCTION CONTINUES

On July 25, 2000, the Board of Public Works and Safety awarded a contract to Milestone Contractors for the third phase of the Rocky Ford Road Improvement Project. This phase of the project extended from Candlelight Drive to Marr Road. Their bid for this phase was \$998,800.00.



Milestone crew finishing curb and gutter.

The project included widening the street to four lanes, the installation of curbs, the construction of a "People Trail" sidewalk on the north side of the street, and the installation of a drainage system. A new bridge opening was also installed in the low area west of the existing bridge so that the road could be raised approximately eighteen inches so that it would not be inundated by flood waters as frequently as in the past. The County Commissioners have also contracted with Milestone Contractors for the widening of the bridge over Haw Creek.



A new bridge was installed so that the road could be raised.



Rocky Ford Road was closed 4 months during construction.

Most of the work on the project from Candlelight Drive to the bridge has been completed, except for the asphalt surface course. That portion of the project was opened to traffic on November 21. The bridge work continues with the expectation that the bridge will be opened in December. Next spring, the road will again be closed while Milestone installs a concrete overlay on the entire bridge deck. The roadway will also be surfaced at that time.

The project was designed by SIECO, Inc. Three parcels of right-of-way were acquired for this phase of the project.

Two previous phases of the project have been completed. In 1998, Middle Road was improved north of Rocky Ford Road. In 1999, Rocky Ford Road was widened from Central Avenue to Candlelight Drive.

The next phase of the project, from Marr Road to Taylor Road, is scheduled for construction in 2002. (See article on page 8.)

CITY ENGINEERING STAFF

David Hayward	City Engineer
Steve Rucker	Assistant City Engineer
Randy Sims	Senior Engineering Technician
Rebecca Douglas	Technician
Tim Darnall	Technician
Julie Moisant	Technician

LINCOLN PARK DRIVE

In partnership with the Parks and Recreation Department, the Board of Public Works and Safety approved a project to reconstruct and re-route a section of Lincoln Park Drive. The project also included the repaving of the Hamilton Center parking lot and the construction of a section of new People Trail. The goal of the project was to make the area safer by separating the through traffic from the drop-off area at Hamilton Center and by utilizing the existing traffic signal at 25th Street and Herman Darlage Drive for traffic entering and exiting the park.



Lincoln Park Drive project during construction.

Milestone Contractors submitted the low bid of \$112,900.00. The project was completed in May during Hamilton Center's annual closure.

TWO-WAY TRAFFIC ON 10TH STREET

In June, the Board of Public Works and Safety decided to change the section of 10th Street from Central Avenue to Cottage Avenue from its current one-way operation to two-way. This change allows eastbound traffic on 10th Street, including trucks leaving Golden Foundry, to proceed directly to Central Avenue instead of being diverted through the residential neighborhood along Cottage Avenue.

In order to convert this section of 10th Street to two-way operation, the traffic signal at 10th and Central was modified in December. That modification, costing \$13,432, was completed by Signal Construction, Inc. Storm sewer improvements and the removal of an island at Cottage Avenue have also been completed by Milestone Contractors at a cost of \$22,900.

NEW TRAFFIC SIGNAL



New traffic signal allows firefighters to stop traffic safely.

A new traffic signal was installed in April at the intersection of 27th Street and Central Avenue. This new signal installation includes pre-emption equipment which allows firefighters to control the traffic from the fire apparatus when leaving or returning to Fire Station No. 4. Firefighters have been very pleased with the improved protection which the signal provides.

The signal was installed by Signal Construction, Inc. of Greenfield, Indiana. Their bid of \$62,126.13 was the lowest received by the Board of Public Works and Safety in July, 1999. The traffic signal was designed by Kloeker Engineering, Seymour.

TRAFFIC SIGNALS TO BE RE-TIMED

Seven traffic signals along 25th Street will be re-timed by Kloeker Engineering and Savage Engineering. The timing of the signals between Central Avenue and Taylor Road will be adjusted, based upon traffic counts conducted by the Traffic Department, to maintain the flow of through traffic along 25th Street while minimizing the delay of traffic on the side streets. The new timings are expected to be installed early in 2001.



ANNUAL STREET PROGRAM COVERS 19 MILES

This year's overlay, patching, crack sealing, and concrete repair projects covered 19 miles, approximately 8.2% of the City's 230.5 miles of streets.

OVERLAY PHASE ONE

The City of Columbus opened bids for the repaving of approximately 12.08 miles of streets on July 11, 2000. The low bid of \$598,576.22 was submitted by Milestone Contractors, L.P.



Milestone paving crew on Tulip Drive.

Milestone also raised manholes, water valves, and detector housings and installed thermoplastic pavement markings as part of the project. The work was completed in October.



Repaving Taylor Road from National Road to South Drive.

Milestone also repaved Winterberry Drive and Winterberry Court in May following the installation of underdrains. The paving covered 0.21 miles of streets at a cost of \$12,874.00.

MILLING AND PATCHING CONTRACT

The City opened quotes for milling and patching on June 27, 2000. CASE Construction submitted the low quote in the amount of \$18,028.00 for patching 0.35 miles of streets.

CRACK SEALING PROGRAM

During July and August, Dave O'Mara Contractor, Inc. sealed cracks on thirty city streets, totaling approximately six miles. This project was part of an ongoing effort to increase the life of city streets through improved preventive maintenance. Sealing the cracks prevents water and salt from penetrating into the pavement causing damage during freeze/thaw cycles. The \$39,703.77 project was completed in August.

CONCRETE STREETS REPAIRED

Throughout the year, the City awarded two contracts for concrete street repairs. In February, CASE Construction was awarded a \$17,633 contract for repairs to the section of Seventh Street between Washington Street and Franklin Street. In November, Central Indiana Contracting was awarded a \$20,373.50 contract for repairs in Riverview Acres and Parkside Addition.

NEW STREETLIGHTS INSTALLED

New streetlights were installed this summer by Cinergy crews along Brown Street and Lindsey Street. The new lights replaced city-owned lights which were installed in the early 1970's. Replacement parts were no longer available for the old lighting system. Next year the remaining lights on both streets will be replaced to complete the project. The cost of the project was \$48,187 in 2000 and will be \$77,067 in 2001.

In early November, the City Engineer's office authorized Cinergy to install six new streetlights on Rocky Ford Road in the area that has been reconstructed this year and to install three new streetlights along McClure Road between 10th Street and the Child Care Center.

INDOT PROJECTS

The Indiana Department of Transportation (INDOT) completed several projects this year and began planning several more projects.

This summer, Milestone Contractors was hired to overlay 3rd Street and State Street. Next year, INDOT is planning to overlay 2nd Street.

Gohmman Asphalt was awarded a contract for the renovation of the Third Street bridge. The completed bridge was expected to be re-opened in December. The bridge now carries three lanes of traffic and a People Trail lane.



Traffic restrictions on Third Street bridge.

INDOT has also awarded contracts for the installation of three new traffic signals. The new signals began operation in November at SR 46 & 325W and at US 31 and Lowell Road. A new signal at SR 11 and 200S is under contract, but is not expected to be in operation until next spring. INDOT also modernized the signal at State Street and Marr Road.

First Group Engineering is preparing plans for the improvements on US 31. A public hearing on the project is expected next spring. Construction is expected to begin in 2004. The project includes widening the road to four lanes plus left turn lanes, sidewalks on both sides, storm sewers, and new bridges over Clifty Creek.

Construction is expected to begin next spring on the improvements on SR 46 from SR 11 to I-65. The project is expected to be completed by the end of the year.

RAILROAD CROSSINGS

The railroad crossings on 8th Street and 10th Street west of Lindsey Street were replaced in September. The new crossing surfaces and signals provide for smoother and safer travel in and out of Columbus on Indianapolis Road.

WalkWorks 2000

The City's sidewalk replacement program, *WalkWorks*, was established in 1991 to encourage property owners to replace unsafe, deteriorated sidewalks and to build new sidewalks. This year, for the first time, churches and not-for-profit properties were eligible for participation. The program has facilitated the replacement of more than seven miles of sidewalks. The City reimbursed property owners \$10 per foot of sidewalk after it was replaced and inspected.

WalkWorks 2000 replaced 1400 linear feet of sidewalk across 15 lots. The total cost of the program was \$14,000.



New curb ramp during construction.

CURB RAMPS

The City installed 82 curb ramps along streets that were overlaid this year as required by the Americans with Disabilities Act. The ramps were built by CASE Construction, Inc. at a cost of \$34,656.60.

DRAINAGE PROJECTS

The City Engineer's Office aggressively sought to find solutions for several drainage problems. The following is a listing of the most significant repairs.

25th and Talley

The City contracted with Corbitt Construction of Indianapolis for the installation of a storm sewer pipe across the intersection of 25th and Talley. The 10" diameter line was bored under the intersection to minimize traffic impacts and to avoid disturbing the recently re-paved street. The new pipe has remedied a persistent drainage problem on the northwest corner.



Utility workers check clearances as drain pipe is bored.

Presidential Parks / Flintwood

The City completed projects to improve the drainage and prevent flooding in the Presidential Parks and Flintwood subdivisions. In July, the City hired Central Indiana Contracting to install a backflow valve to prevent flood water from Sloan Branch from flowing through the system and causing problems in the addition.

Eastridge Manor

Since Eastridge Manor was annexed in 1990, the City has completed drainage improvement projects in 1995 and 1999. In 2000, two extensions were completed at the western edge of the subdivision by Central Indiana Contracting and CASE Construction.

Grange Drive

A combination of an aging absorption system and a new nearby subdivision under construction caused the drainage system on Grange Drive, in the Woods, to fail. A \$13,725 project, constructed by Milestone Contractors, has restored the capacity of the system.

10th and Cottage

In conjunction with a change in traffic flow on 10th Street from Cottage to Central (see article on page 3), the City has extended a storm sewer to drain the intersection of 10th and Cottage. The project was completed in December by Milestone Contractors at a cost of \$22,900. The project included the removal of the island at 10th and Cottage.

15th and Franklin

During heavy downpours, the intersection of 15th and Franklin Street floods due to the lack of capacity in the combination sewers. The City Engineer's Office has determined that the area can be drained by a storm sewer extension from Lawton Street. Plans will be prepared and bids will be opened early next year.

Winterberry Underdrains

In May, Milestone Contractors installed 2013 linear feet of underdrains in Winterberry Addition. The street was re-paved after the \$26,950 underdrain project was completed. The underdrains should extend the life of the pavement.

State Street Ponds

The City Engineer's Office has continued to study the drainage system serving East High School and State Street. A previous study by SIECO, Inc. concluded that the existing ponds do not adequately drain the area when the water table is elevated. Several solutions are being considered including the installation of an overflow pipe to Clifty Creek, dredging the ponds, and the installation of a better connection between the ponds. The proposed improvements would be beneficial to the residents of Wehmeier Addition as well as East High School.

DRAINAGE PROJECTS

Sandy Hook

The City Engineer's Office, in cooperation with the Sandy Hook Lot Owners Association, has completed some drainage improvements and has recently outlined a three phase plan to improve the drainage system in the area. The improvements completed this year were on Waycross Drive to minimize the street runoff which flows into the lake. The planned phases will provide a gravity outfall from the lake to the National Road overflow bridge.

Drainage Repair Projects

The City awarded contracts totaling \$322,261.96 for miscellaneous drainage repairs and improvements in 2000. This work was awarded through the quote process to local contractors. The 2000 drainage projects included:

Storm Sewer Pipe, New	1098'	Repaired	100'
Inlets, New	10	Repaired	23
Dry wells, New	5	Repaired	1
Curb, New	91'	Repaired	137'
Sidewalk, New	100 sft	Repaired	150 sft
Pavement Repairs	12,129 sft		
Underdrains, New	2,638'		
Manholes, Repaired	5		

Terrace Lake Drive

Working with the Terrace Lake Lot Owners Association, the City completed two drainage and safety projects this year. Additional projects are being planned for next year to resolve several remaining issues.



Crews preparing new section of Terrace Lake Drive.

PAVEMENT MANAGEMENT

The City Engineering staff expects to complete the data entry phase of the pavement management program in December. When completed, the program will be a database of dimensional, historical, and functional characteristics of each segment of public street in the city. That data can be sorted by any of the characteristics and evaluated to assist in projecting maintenance and improvement needs.

INVENTORIES

The engineering staff has also been developing and updating inventories of curb ramps and storm sewers. These inventories will be very helpful as we prepare to implement GASB 34 and NPDES Phase 2 over the next two to three years.

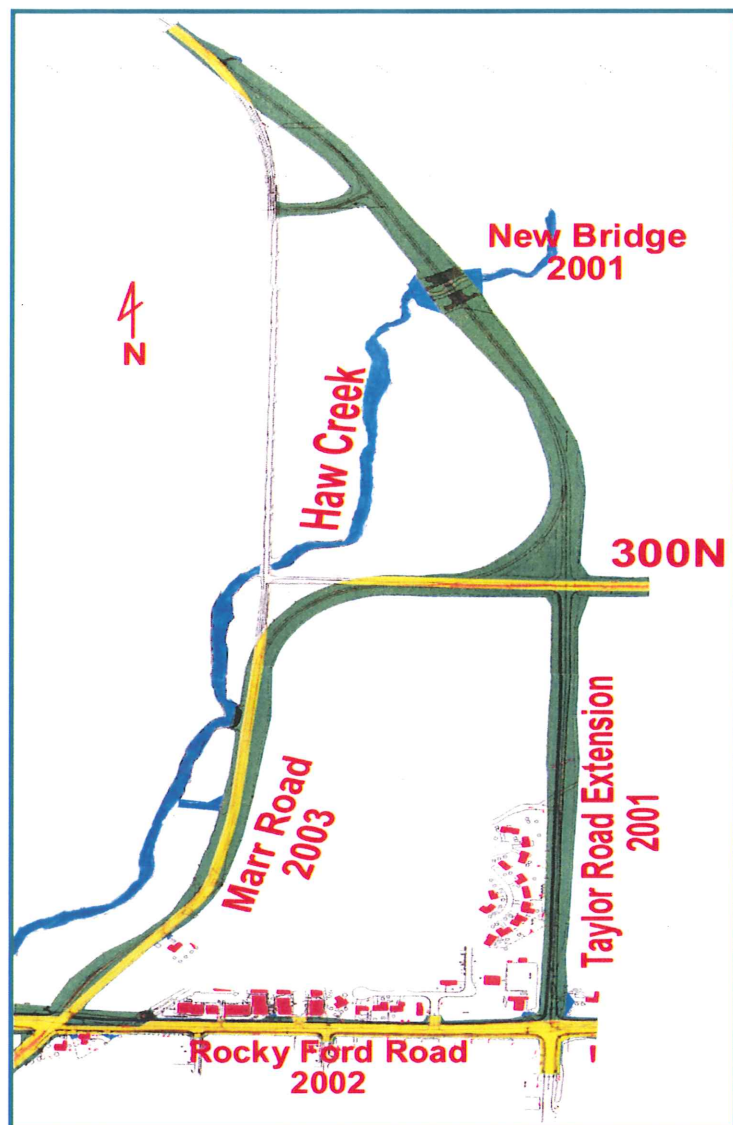
STAFF TRAINING

The City Engineer's Office personnel received training in several areas this year. In February and March, Ivy Tech provided an AutoCAD introductory course for three members of the engineering staff, along with the Planning Department, County Surveyor's Office, County Highway Engineer, and Parks and Recreation. They also provided an AutoCAD 2000 update class for other staff members. The staff also received training in drainage design and review, CarteGraph pavement management software, asphalt pavement design and inspection, and land development software.

Facts and Figures

Miles of streets in Columbus	230.5
Number of traffic signals	35
Number of street cut permits 2000	375
Number of street closings 2000	103
Area of the City	26 sq. mi.

TAYLOR ROAD EXTENSION



In 2001, the City and County will begin a multi-phase project to reconstruct sections of Marr Road and Rocky Ford Road and to extend Taylor Road from Rocky Ford Road to Road 300N.

During the first phase of the project, scheduled for 2001, the County will construct a new bridge over Haw Creek to replace an existing deficient bridge. The first phase also includes the construction of a new section of road connecting existing Marr Road to the new bridge and to Road 300N.

During the second project phase, also scheduled for 2001, the City plans to extend Taylor Road from Rocky Ford Road to Road 300N at the intersection with the new Marr Road.

The third phase of the project, scheduled for 2002, calls for the widening of Rocky Ford Road to four lanes between Marr Road and Taylor Road.

The improvement of Marr Road north of Rocky Ford Road would be completed in the fourth and final phase, in 2003.

The project is being funded by 80 percent federal funds. All of the project phases are being designed by AECON, Inc. of Bloomington. The right-of-way acquisition process has begun for the first and second phases.

Wayfinding Project

Final plans are now being completed for directional signs on some of the City's major streets. The signs are a part of a wayfinding project, which has been planned since 1995. The signs will help guide visitors to schools, parks, the Visitors Center, and other destinations. New maps will be coordinated with the sign system.

The sign system is being designed by Corbin Design of Traverse City, Michigan through a contract with the Chamber of Commerce Foundation. The project is funded by the Cummins Engine Foundation, Columbus Area Chamber of Commerce, Visitors Center, City of Columbus, and several local companies. Implementation of the wayfinding project is expected to begin early next year.

